

**UNITED STATES AGENCY FOR INTERNATIONAL
DEVELOPMENT**

Enterprise Energy Efficiency (3E) Project

IQC Contract # EPP-I-00-03-00004-00

Task Order # 12

MOSTAR PP OLD HIGH SCHOOL FACT SHEET

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FROM THE AMERICAN PEOPLE

BOSNIA-HERZEGOVINA

Energy Efficiency Project in the Gimnazija High School in Mostar

The Gimnazija Mostar is attended by approximately 900 students and 71 staff members. It was constructed in 1897 and partially renovated in 2009 to restore its original beauty

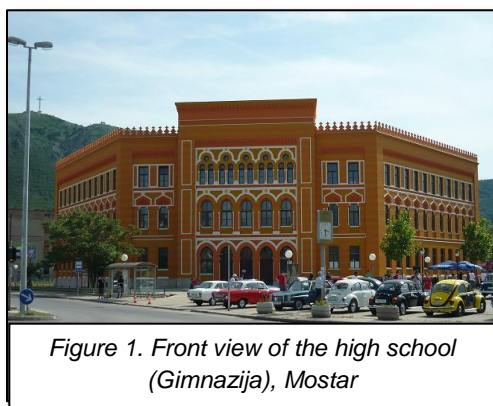


Figure 1. Front view of the high school (Gimnazija), Mostar

(Figure 1). The building was built in the typical construction style of the Austro-Hungarian period, with thick walls and high ceilings. Thick walls provided sufficient thermal insulation, but the windows were single glazed and caused high heat loss and cold air infiltration. The windows were replaced by top quality double glazed windows, financed by the City of Mostar.

There is no district heating system or gas pipeline in Mostar, so the school used fuel oil for heating.

The heating system was designed in such a way

that the whole building had to be heated even though only a part of the building was used. The heating control system was manually adjusted by maintenance personnel on a subjective basis. This ineffective heating system was modified to enable zonal heating of the building and automatic control of heating according to outdoor temperature. Also, radiators hanging in the gym were replaced and thermostatic valves in the whole building were installed.

Implemented Energy Efficiency measures:

- **Reconstruction of the heating distribution system (enabling the zonal control heating)**
- **Installation of a system for remote reading of energy consumption**

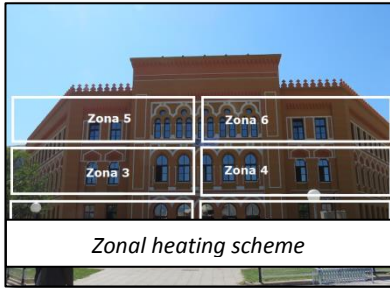
The educational information monitor is installed at the entrance to the school and displays energy savings attained and money saved, so that the students and teachers understand energy efficiency and the money savings that result from it. The school and the city will be able to invest money saved in other areas needed for the benefit of

Overall Pilot Project value	406,000 KM
Contributions:	
City of Mostar	350,000 KM
USAID 3E	29,000 KM
UN Environment and Climate Change Programme (funded by the Government of the Kingdom of Spain)	27.000 KM

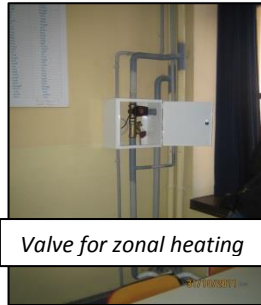
citizens.

Expected results:

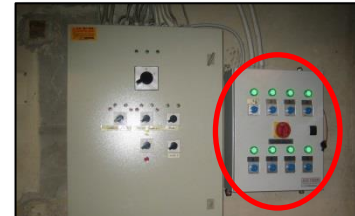
- **40% reduction** in annual heating costs
- **CO2 emissions reduced by 22 t/year**
- **Raising** the level of citizens' **awareness** and knowledge of the opportunities and benefits of energy efficiency measures.



Zonal heating scheme



Valve for zonal heating



Command panel for valve management



Mr. David J. Barth, USAID BiH Mission Director, at the inauguration of the Gimnazija Mostar Pilot Project in Mostar, September 20, 2012.

The centerpiece of the USAID Enterprise Energy Efficiency (3E) Project is the implementation of 17 Pilot Projects throughout Bosnia and Herzegovina. Mature and proven energy efficiency technologies that can be implemented in BiH with payback periods of less than five years are being used. The consumer recovers the savings in lower bills for heating, electricity and water and continues to reap the benefits after payback. For the implementation of these pilot projects, local companies will be used to carry out the works, which also helps establish new jobs in energy efficiency. USAID 3E will also hold trainings and seminars on energy efficiency in the region of the pilot projects.

The USAID Enterprise Energy Efficiency (3E) Project is a USD 4.2 million program for the promotion of Energy Efficiency technologies through the development of pilot projects in buildings that are co-financed by the public and private sector. USAID 3E is working on increasing the capacity building of municipal partners from the public sector as well from the small and medium enterprises. The project also works on increasing the public awareness about the benefits of energy efficiency. To date, the U.S. Government, primarily through USAID, has provided almost \$1.6 billion in assistance to support economic, democratic and social progress in BiH.